



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,398	07/15/2003	Johannes Hendrikus van Lith	VAND10	7671
7590 02/02/2006			EXAMINER	
Ryan A. Schneider Troutman Sanders LLP Bank of America Plaza, Suite 5200 600 Peachtree Street, N.E. Atlanta, GA 30308-2216			CHARLES, MARCUS	
			ART UNIT	PAPER NUMBER
			3682	
DATE MAILED: 02/02/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/619,398	Applicant(s) VAN LITH ET AL.	
	Examiner Marcus Charles	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is responsive to the amendment filed 11-28-2005, which has been entered.

Claims 1-20 are currently pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-2 and 19-20 are rejected under 35 U.S.C. 102(a) as being anticipated by JP (63-280946) to Kino discloses the claimed invention (see figs. 1-2 and 3) including a convex transition region (2d) comprising two parts having different radii curvature (see attached drawing) such that the first radius at the side surface is larger than that of the second radius at the side of the pulley contact surface.

In claim 2, it is apparent that a line inherently intersects the pulley sheave contact surface. It should be noted the line inherently passes through the intersection of the pulley-engaging surface the transition region. In must cases the line is invisible in the region of the tangent of the line representing the pulley contact surface and the point of contact between the transition region and the pulley contact surface.

In claims 19-20, JP 63-280946) to Kino clearly discloses the drive belt and the continuously variable transmission, wherein the drive belt comprises two endless carriers (3).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over (63-280946). JP (63-280946) to Kino does not disclose the ranges of the radii of curvature for the first and second radii. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the radii of curvature for the first and second radii so that each one has a range as recited by the claimed invention, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

5. Claims 3- 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 63-280946) to Kino in view of Yagasaki et al. (6,110,065). JP (63-280946) does not disclose the pulley contact surface of the belt element is corrugated by means of bulges. Yagasaki et al. discloses a CVT (Fig. 7) comprising belt (E) elements that are corrugated by means of bulges (2b) on the pulley contact surface in order to prevent shock loading and to minimize frictional wear. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the pulley contact face of the belt element of (63-280946) so that it is corrugated by means of bulges in view of Yagasaki et al. in order to prevent shock loading and to minimize frictional wear.

Response to Arguments

6. Applicant's arguments filed 11-28-2005 have been fully considered but they are not persuasive. Applicant contended that JP (63-280946) to Kino et al. does not disclose the transition region comprising two parts having different radii curvature. However, it is agreed that the Kino reference does not give specific details about the transition region. As can be seen in figs. 1-3, Kino et al. clearly shows the transition region having two different radii. Note, the saddle part section is constituted by a first curvature (R1), which approaches the contact face 2b and forms part of the transition region; between the curvature (2d) in the transition region area and the engaging surface (2b) in the transition region area is a small radii that bridges the curvature (R1) and the contact surface (2b). Therefore, the transition region comprises a curved surface comprising two different radii.

Regarding claim 2, applicant contended that the prior art fails to disclose the line intersecting the pulley sheave contact surface. It should be noted that it is inherent for a pulley in this category for a line to intersect the sheave contact surface. The intersecting line is created between the transition region and the contact surface. An illustration of such line can be seen in patent no. (4,526,559), item 58.

Regarding claims (19-20) Kino et al. clearly discloses the elements (3).

Regarding claims 5-18, applicant has not disclosed having such specific angles solves any particular problem. Further, more, applicant has not disclosed s to how the ranges were obtained.


For the reasons stated above the rejection is deemed proper.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Marcus Charles
Primary Examiner
Art Unit 3682
January 22, 2006

頭部2f部分、即ち頭部両側部分8.8 と上サドル部2g、2gを有する従片9 との両者に分割製作し、それぞれの各部精密加工を施したものを事後結合してブロック2 としたので、主片7 における傾斜面2bの角度 α' 下の精密加工、下サドル部2dの半径 R_1 、 R_2 下の球面加工、首部2eにおける4隅の R_3 による角取り加工、また各ブロックの並列結合の位置決め、振れ止め用の係合用凹凸部2h、2iの対応位置における成形加工は、何れも溝部5 が全く存在しないことにより、きわめて容易にその厳密な高精度加工内容が、機械的研削、研磨手段あるいは精密型鍛造手段の如何を問わず、十分に得られるのであり、また従片9 における上サドル部2gの加工も同様であり、また基本的な原形製作に当たっても、従来のブロック2 を製作するものに比し、主片7 および従片9 に分けて各個製作することは、鋼板打抜き、焼結手段の何れにおいてもきわめて容易であり、量産化を可能として大幅なコストダウン効果が得られるのであり、またその分割位置としても、ブロック頭部2f側において

中央部分6 と両側部8.8 とすることは、例えば第9 図に例示するように、首部2eの中央から上下2分する手段に比し、強度上また加工上において著しく有利であり、この横伝導ベルトにおける押し要素として重要な金属ブロックの改良として優れた効果を持つものである。

4. 図面の簡単な説明

第1、2、3各図は何れも本発明ブロック実施例の各正面図、第4、5図は従来ブロックの正面および縦断側面図、第6図は同下サドル部、第7図は同上サドル部の各要部断面図、第8図は同首部の横断面図、第9図は従合ブロック例の説明図、第10図は本発明の対象とする伝導ベルト例の縦断正面図、第11図は同ベルト要部の一部切欠斜面図、第12図は同ブロック例の側面図である。

1…伝導ベルト、2…金属ブロック、3…金属フープ、2a…基部、2b、2c…傾斜面、2d…下サドル部、2e…首部、2f…頭部、2g…上サドル部、2h…凸部、2i…凹部、6…頭部中央部分、7…主片、8…頭部両側部分、9…従片。

